Response to Oregon Public Broadcasting Inquiry
February 12, 2016

The Oregon Department of Environmental Quality found a significant "hot spot" of cadmium and arsenic during air sampling in Portland, Oregon near SE 22nd Ave. and Powell Blvd. DEQ is collecting additional air and soil samples in the affected area, and is working collaboratively with county, state and federal health agencies (Oregon Health Authority, Multnomah County Health Department, and the Agency for Toxic Substances and Disease Registry) to assess and mitigate impacts to public health. EPA is keeping fully informed about this developing situation and is ready to support and assist ODEQ as needed. EPA and ATSDR are evaluating these findings in relation to EPA health standards.

Additional information, including a link to air sampling data and a map of the affected area, can be found at: http://www.deq.state.or.us/nwr/metalsemissions.htm. DEQ's initial findings are that the monthly average is 49 times greater than the state air toxics benchmark for cadmium and 159 times the state air toxics benchmark for arsenic.

Questions and Answers

How is EPA involved and what is our role?

EPA Region 10 was briefed by DEQ one-week prior to their February 3, 2016 press release. DEQ is the lead agency for implementing the Clean Air Act in Oregon and we are supporting their efforts.

EPA Region 10 jointly inspected Bullseye Glass and Uroboros Glass facilities with DEQ on February 10, to better understand the processes being used and the pollution controls currently in place. This information will help us determine if further action is appropriate under EPA authority.

We are reviewing records to identify other potential sources in the affected area. Federal regional screening levels (RSL) are being compared with the DEQ state health benchmarks in relation to the amount of contamination found in the study to better understand the health impact. EPA continues to support the DEQ, OHA, MCHD and ATSDR efforts to assess, monitor and communicate information as it becomes available.

Are we determining or confirming the air pollution and/or the source?

ODEQ is keeping EPA informed of their actions to monitor the situation and exposure levels. DEQ conducted air monitoring at nearby schools and day care centers. DEQ is conducting additional air and soil sampling is getting underway. EPA is providing DEQ with additional high volume air sampling equipment and filters to support this effort.

What federal air regulations apply to glass manufacturing facilities?

EPA has three national standards that potentially apply to glass manufacturing plants. Whether a standard applies can depend on a number of factors, such as startup date, type of furnace, and the amount of glass produced.

- A National Emissions Standards for Inorganic Arsenic Emissions from Glass Manufacturing Plants (issued in 1986), which set emissions limits of 2.7 tons per year for arsenic, or 85 percent control for existing glass-melting furnaces; for new or modified glass melting furnaces, the limit is 0.44 tons or 85 percent control.

- Standards of Performance for Glass Manufacturing Plants (issued in 1980), which set performance standards to limit emissions particulate matter (PM). Limiting particulate matter also limits emissions of lead and other toxic metals.

  A 2007 National Emissions Standard Hazardous Air Pollutants for Glass Manufacturing Area Sources, which sets emissions limits for plants that emit less than 10 tons a year of a single air toxic, or less than 25 tons a year of a combination of toxics. Manufacturers subject to the 2007 standards must meet either a PM limit of 0.2 pounds of PM per ton of glass produced, or a limit of 0.02 pounds of metal air toxics per ton of glass produced.

What type of pollution controls should glass manufacturers use?

Because glass melts at a very high temperature, a glass facility would need to use multiple steps to control their metal emissions – including changing the pollutants from a vapor to a particle using cooling or specialized sorbents and then removing the particles using a control device such as an electrostatic precipitator or a baghouse.

Design of controls for these facilities is customized and complex and may include multiple types of control equipment based on the types of glass the facility is making and the pollutants the processes emit.

Do we know any more about the USFS role or study mentioned in the news media?

The study was a collaborative effort between US Forest Service and DEQ to better understand the sources and distribution of toxic metals, including arsenic and cadmium, air pollution in Portland. EPA has requested a copy of the study as soon as it is published.